CLAIMS

1. A graphics system comprising:

a depth buffer device to store at least one variable-formatable floating point number relating to a depth of a pixel of an image; and

a first processing device to perform a depth test by comparing a value associated with a current pixel to a value associated with a corresponding pixel stored in said depth buffer device.

2. The system of claim 1, wherein said depth buffer device stores at least a value relating to a W value of each pixel of said image.

3. The system of claim 1, further comprising a second processing device to calculate a number of fraction bits of said variable-formatable floating point number.

4. The system of claim 3, further comprising at least one register to store the calculated number of fraction bits.

5. The system of claim 1, wherein said first processing device compares a W/Wfar value of said current pixel with a W/Wfar value of the corresponding pixel stored in said depth buffer device.

6. The system of claim 1, further comprising a display device to display an image based on a result of said depth test.

7. A system comprising:

a depth buffer device to store at least a value relating to a pixel of an image; and

a processing device to determine a format of said value stored in said depth buffer device and to perform a depth test for pixels in said image based on values stored within said depth buffer device.

8. The system of claim 7, wherein said depth buffer device stores at least a value relating to a W value of each pixel.

9. The system of claim 7, wherein said value comprises a floating point number.

10. The system of claim 9, wherein said floating point number comprises a variable-formatable floating point number.

11. The system of claim 7, wherein said processing device calculates a number of fraction bits of said floating point number.

12. The system of claim 11, further comprising at least one register to store the calculated number of fraction bits.

13. The system of claim 7, wherein said processing device compares a W/Wfar value of a current pixel with a W/Wfar value of the corresponding pixel stored in said depth buffer device.

14. The system of claim 7, further comprising a display device to display an image based on a result of said depth test.

15. A method comprising:

determining a format of a depth buffer device;

storing a value associated with a pixel of an image in said depth buffer device based on the determined format of said depth buffer device, and

comparing a value associated with a current pixel to said value stored in said depth buffer device in said determined format.

16. The method of claim 15, wherein determining said format comprises calculating a number of fraction bits of a floating point number.

17. The method of claim 16, further comprising storing said calculated number of fraction bits in a register.

18. The method of claim 17, wherein said stored value is based on said calculated number of fraction bits stored in said register.

19. The method of claim 15, further comprising displaying an image based on said comparison.

20. The method of claim 15, wherein said stored value in said depth buffer device relates to a W value of each pixel.

21. The method of claim 15, wherein said comparing comprises comparing a W/Wfar value of said current pixel with a W/Wfar value of the corresponding pixel stored in said depth buffer device.

22. A method of performing a depth test for an image, said method comprising:

calculating a number of fraction bits for a depth buffer device; and

storing a value of a current pixel in said depth buffer device in a format based on said calculated number of fraction bits.

23. The method of claim 22, further comprising performing said depth test by comparing a value associated with said current pixel to said value associated with a corresponding pixel stored in said depth buffer device.

24. The method of claim 23, further comprising displaying said image based on said depth test.

25. The method of claim 23, wherein said comparing comprises comparing a W/Wfar value of said current pixel with a W/Wfar value of the corresponding pixel stored in said depth buffer device.

26. The method of claim 22, wherein said stored value in said depth buffer device relates to a W value of one pixel of said image.

27. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method comprising:

determining a format of a depth buffer device; and

storing a value of said determined format.

28. The program storage device of claim 27, wherein said method further comprises:

storing a value associated with a pixel of an image in said depth buffer device based on the determined format of said depth buffer device; and

comparing a value associated with a current pixel to said value stored in said depth buffer device in said determined format.

29. The program storage device of claim 27, wherein determining said format comprises calculating a number of fraction bits of a floating point number.

30. The program storage device of claim 29, wherein said stored value is based on said calculated number of fraction bits.

add A1